

Sub. B4

- c) binds to an anti-gp41 antibody; and
- d) has no inter-chain disulfide bridges.

12. (New) The composition according to claim 11, wherein the gp160 comprises a gp41 and a gp120 from different HIV strains.

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Sub. B5

13. (New) The composition of claim 11, wherein all or a portion of the gp160 transmembrane region is deleted.

14. (New) The composition according to any one of claims 11 - 13 having a protein content that comprises more than 50% of the trimer.

15. (New) The composition according to any one of claims 11 - 13 wherein the binding affinity of the trimer to CD4 is equal or greater than the binding affinity of gp120 of an infectious HIV.

16. (New) A vaccine comprising the composition of any one of claims 11 - 13 and an adjuvant.

Sub. B6

17. (New) A vaccine according to claim 16 wherein the trimer is the only HIV surface antigen in the vaccine.

18. (New) A method of producing the trimer according to any one of claims 11 - 13, the method comprising:

- a) expressing gp160 or fragment thereof;
- b) purifying the gp160;
- c) contacting the gp160 with a reducing agent;